(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
11 July 2019 (11.07.2019)

WIPO | PCT

(10) International Publication Number
WO 2019/136038 A4

(51) International Patent Classification:
A61K 39/00 (2006.01) *A61P 35/00* (2006.01)

(21) International Application Number:
PCT/US2019/012003

(22) International Filing Date:
01 January 2019 (01.01.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/612,826 02 January 2018 (02.01.2018) US

(71) Applicants: **KHLORIS BIOSCIENCES, INC.** [US/US]; 19630 Allendale Ave #3167, Saratoga, CA 95070 (US). **THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY** [US/US]; P.O. Box 20386, Office of the General Counsel, Building 170, 3rd Floor, Main Quad, Stanford, CA 94305-2038 (US).

(72) Inventors: **KOOREMAN, Nigel, G.**; c/o Khloris Biosciences, Inc., 19630 Allendale Ave #3167, Saratoga, CA 95070 (US). **WU, Joseph, C.**; c/o Khloris Biosciences, Inc., 19630 Allendale Ave #3167, Saratoga, CA 95070 (US). **BUI, Lynne**; c/o Khloris Biosciences, Inc., 19630 Allendale Ave #3167, Saratoga, CA 95070 (US).

(74) Agent: **NGUYEN, Sam, L.** et al.; Hamilton, DeSanctis & Cha, LLP, 3239 El Camino Real, Suite 220, Palo Alto, CA 94306 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report (Art. 21(3))*
— *with amended claims and statement (Art. 19(1))*

Date of publication of the amended claims and statement:
15 August 2019 (15.08.2019)

WO 2019/136038 A4

(54) Title: IPSC-BASED VACCINE AS A PROPHYLACTIC AND THERAPEUTIC TREATMENT FOR CANCER

(57) Abstract: In one embodiment, the application discloses a method for the treatment of cancer in a patient, the method comprises a vaccination of the patient with a vaccine, wherein the vaccine comprises an effective amount of mammalian pluripotent stem cells obtained from an embryonic source or obtained by reprogramming of somatic cells from the patient, wherein the vaccination comprising the step of administering a mammalian pluripotent stem cells to the patient in need thereof; and vaccine formulations for use in the treatment of cancer.